

CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. (Previously Presented) An arrangement for the determination of the dynamic axle loads and/or the wheel loads of a wheel vehicle, comprising:

- a measuring device arranged in the wheel vehicle or which can be arranged in the wheel vehicle, wherein said measuring device being operable to measure at least two linear accelerations of a wheel vehicle oriented transversally with respect to each other and to measure three rotation rates of a rotation movement or of a component of a rotation movement around a coordinate axis of the wheel vehicle, respectively, wherein said three coordinate axes extend transversally with respect to each other, and
- an evaluation device, coupled with the measuring device and operable to determine at least one axle load and/or one wheel load by means of the at least two linear accelerations and the three rotation rates.

2. (Previously Presented) An arrangement according to claim 1, wherein the measuring device has acceleration sensors in order to measure the linear accelerations and rotation rate sensors to measure the three rotation rates, wherein said acceleration sensors and the rotation rate sensors are parts of a prefabricated unit embodied in accordance with equipment engineering so that they can be installed in the wheel vehicle.

3. (Previously Presented) An arrangement according to claim 1, wherein the measuring device is operable to measure the at least two linear accelerations as linear measured quantities, which do not depend on each other.

4. (Previously Presented) An arrangement according to claim 1, wherein the measuring device has been embodied in such a way that the three coordinate axes extend vertically with respect to each other in pairs.

5. (Previously Presented) An arrangement according to claim 1, wherein in order to measure the rotation rates and to measure the linear accelerations, the measuring sensors of the measuring device are fitted to a vehicle structure moving relative to a running gear of the motor vehicle.

6. (Previously Presented) An arrangement according to claim 1, wherein the evaluation device has a computation unit, which is operable to calculate, by using a measured value measured by the measuring device for a linear acceleration oriented transversally to the plane of a vehicle subsurface, at least one part of the axle load and/or a part of the wheel load.

7. (Previously Presented) An arrangement according to claim 1, wherein the evaluation device has a computation unit, which is operable to calculate, by using the three rotation rates, at least one part of the axle load and/or a part of the wheel load, which is generated by a rotation movement of the wheel vehicle and/or by a rotation movement of a part of the wheel vehicle.

8. (Previously Presented) An arrangement according to claim 1, wherein the evaluation device has a computation unit, which is operable to calculate the axle load and/or the wheel load, with due consideration of a, in particular damped, suspension (40, 41, 43) between at least one of the wheels (21, 22, 23, 24) of the wheel vehicle and a vehicle structure, .

9. (Previously Presented) A method for the determination of the dynamic axle loads and/or the wheel loads of a wheel vehicle, the method comprising the steps of:

- measuring in the wheel vehicle at least two linear accelerations of a wheel vehicle oriented transversally with respect to each other and three rotation rates of a rotation movement or of a component of a rotation movement around a coordinate axis of the wheel vehicle, respectively, wherein said three coordinate axes extend transversally with respect to each, and
- determining at least one axle load and/or one wheel load of the wheel vehicle, by using the at least two linear accelerations and three rotation rates .

10. (Previously Presented) A method according to claim 9, wherein the linear accelerations are measured with acceleration sensors and the rotation rates with rotation rate sensors and wherein said acceleration sensors and the rotation rate sensors are parts of a prefabricated unit embodied in accordance with equipment engineering so that they can be installed in the wheel vehicle.

11. (Previously Presented) A method according to claim 9, wherein the at least two linear accelerations are measured as linear measured quantities, which do not depend on each other.

12. (Previously Presented) A method according to claim 9, wherein the three coordinate axes extend vertically with respect to each other in pairs.

13. (Previously Presented) A method according to claim 9, wherein the rotation rates and the linear accelerations are measured as rotation rates and linear accelerations of a vehicle structure moving relative to a running gear of the motor vehicle.

14. (Previously Presented) A method according to claim 9, wherein, by using a measured value measured in the wheel vehicle for a linear acceleration oriented transversally to the plane of a vehicle subsurface, at least one part of the axle load and/or a part of the wheel load is calculated.

15. (Previously Presented) A method according to claim 9, wherein, by using the three rotation rates, at least one part of the axle load and/or a part of the wheel load is calculated, which is generated by a rotation movement of the wheel vehicle and/or by a rotation movement of a part of the wheel vehicle.

16. (Previously Presented) A method according to claim 9, wherein, with due consideration of a, in particular damped, suspension between at least one of the wheels of the wheel vehicle and a vehicle structure, the axle load and/or the wheel load is calculated.

17. (Previously Presented) A method according to claim 9, further comprising the step of forecasting whether or not a wheel of the wheel vehicle or a plurality of wheels of the wheel vehicle will lose roadholding and thus the grip to a subsurface, by using the calculated at least two axle loads and/or wheel loads.

18. **(Currently Amended)** An arrangement for the determination of the dynamic axle loads and/or the wheel loads of a vehicle, comprising:

- a measuring device arranged in the center of the vehicle for measuring comprising:

- at least two linear ~~accelerations~~ acceleration sensors of the vehicle oriented transversally with respect to each other, and

- three rotation ~~rates~~ rate sensors for measuring of a rotation movement or of a component of a rotation movement around a coordinate axis of the vehicle, wherein said three coordinate axes extend transversally with respect to each other, and

- an evaluation device coupled with the measuring device for determining at least one axle load and/or one wheel load by the at least two linear accelerations and the three rotation rates.

19. **(Currently Amended)** An arrangement according to claim 18, wherein the measuring device is arranged in the proximity of the center of gravity of a wheel vehicle comprises ~~acceleration sensors for measuring the linear accelerations and rotation rate sensors for measuring the three rotation rates.~~

20. **(Previously Presented)** An arrangement according to claim 18, wherein the measuring device is operable to measure the at least two linear accelerations as linear measured quantities, which do not depend on each other.